September 11, 2017

David Furth, Deputy Chief
Public Safety and Homeland Security Bureau
Federal Communications Commission
445 12th Street, SW
Washington, DC 20554

Re: U.S. – Canada Border Enhanced Specialized Mobile Radio ("ESMR") Dividing Lines, WT Docket 02-55

Dear Mr. Furth:

With the completion of the Washington NPSPAC Region (Region 43) in August 2016,[1] all 800 MHz incumbent licensees have completed band reconfiguration retuning efforts in the various National Public Safety Advisory Committee Regions ("NPSPAC") adjacent to the U.S. – Canada Border ("Canada Border Region markets" or "CBRs").

In accordance with the *Second Report and Order*[2] in this proceeding, the 800 MHz Transition Administrator ("TA") was directed to identify "the dividing line between the ESMR and non-ESMR portions of the band for Regions 1 through 6" once "replacement frequencies have been assigned."[3] Since that time, the TA has proposed replacement frequencies for nearly 200 licensees along the U.S. – Canada Border; all Frequency Reconfiguration Agreements ("FRAs") between licensees and Sprint have been negotiated; and all 800 MHz retunes have been completed, including any associated licensing of replacement frequencies. Accordingly, via a letter dated September 1, 2017, the TA identified proposed dividing lines between the ESMR and non-ESMR portions of the 800 MHz band for CBRs 1 through 6.[4]

While Sprint agrees with the proposed ESMR/non-ESMR dividing lines (hereafter "the ESMR Line") in the majority of CBRs as shown in Appendix A to the TA Letter, Sprint respectfully requests that the Public Safety and Homeland Security Bureau ("Bureau") establish

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1 *See* Sprint Status Report, dated October 1, 2016 in WT Docket 02-55.

2 In the Matter of Improving Public Safety Communications in the 800 MHz Band, New 800 MHz Band Plan for U.S. – Canada Border Regions, *Second Report and Order*, 23 FCC Rcd 7605 (2008) ("*Canada Order*").

3 *Canada Order* at ¶7.

4 *See* Letter from Brett Haan, 800 MHz Transition Administrator, LLC to David Furth, Deputy Chief, Public Safety and Homeland Security Bureau, September 1, 2017 in WT Docket 02-55.

an alternative dividing line between the ESMR and non-ESMR segments within CBR2. Sprint proposes that this be done via a NPSPAC Region-by-NPSPAC Region approach. Sprint is not requesting changes to the other five CBR ESMR Lines across the country and is specifically limiting this request to only the CBR2 area.

Background

There are six CBRs along the U.S. – Canada Border.[5] These CBRs were established between the United States and Canada as a method to apportion 800 MHz spectrum between each country.[6] CBR1, CBR4, CBR5 and CBR6 divided the 800 MHz spectrum between the two counties equally.[7] CBR2 divided the spectrum such that Canada holds the majority of the 800 MHz spectrum,[8] while the United States holds the majority of the 800 MHz spectrum in CBR3.

The *Canada Order* held that in the upper portion of the 800 MHz band, ESMR and non-ESMR systems would be separated and that the "dividing line between ESMR and non-ESMR spectrum will vary by region depending on the number of incumbent non-ESMR systems that must be accommodated."[9] The ESMR Line in the areas along the U.S. – Canada Border would be established after band reconfiguration was completed in each "border region."[10] This language indicates that the Bureau intended "region" to apply to CBR-defined areas and not by NPSPAC Region even though 800 MHz band reconfiguration was planned for and implemented on a NPSPAC Region-by-NPSPAC Region approach.

Sprint acknowledges that it did not seek reconsideration of this specific issue after the *Canada Order* because, at the time, it was unclear how 800 MHz band reconfiguration would ultimately result in each individual NPSPAC Region and within each CBR. Now that 800 MHz band reconfiguration is complete in all of the U.S. – Canada Border areas, however, Sprint is in a position to propose a more reasonable, fact based ESMR Line using all currently available information as well as an updated understanding of the potential impacts to Sprint.

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5 *See* Appendix B to *Canada Order*. For the purposes of this filing, CBR7 (7A and 7B) and CBR8 are not relevant as these CBRs are merely additional buffer zones in the U.S. that were not modified in the 800 MHz band reconfiguration process.

6 *See Canada Order* at ¶2.

7 *See Canada Order* at ¶2.

8 *See Canada Order* at ¶2.

9 *See Canada Order* at ¶7. The Commission similarly stated at ¶17 of the *Canada Order*: "Once all B/ILT and high site SMR licensees have been assigned replacement channels, the remaining U.S. primary channels in the higher portion of the band will be available for ESMR operations, subject to the limitations discussed below. Since the number of channels occupied by B/ILT and high site SMR licenses will vary from region to region, the dividing line between the ESMR and non-ESMR portion of the band will also vary by region."

10 *See Canada Order* at ¶18.

A More Narrow Approach is Warranted in CBR2

CBR2 starts at the state-boundary between Ohio and Pennsylvania and spans all the way through Western Pennsylvania (including Erie, Pennsylvania), through Western New York (Buffalo and Rochester), Upstate New York, Vermont and New Hampshire. Under the *Second Report and Order*, the highest non-ESMR replacement frequency anywhere in CBR2 would set the ESMR Line for all of CBR2 from Erie to Maine. The reality, however, is that the 800 MHz licensing environment in each geographic portion of CBR2 is different. In Erie, the highest placed frequency of a non-ESMR licensee is at 864.8125 MHz, while the highest frequency in Buffalo/Rochester is at 864.5625 MHz. In the rest of Upstate New York, the highest replacement frequency used was at 863.8875 MHz, while in Vermont/New Hampshire it was at 863.7375 MHz. Setting the ESMR Line at the highest level, in this case at 864.825 MHz,[11] for the whole CBR2 would result in Sprint losing access to nearly two MHz of spectrum in Upstate New York, Vermont and New Hampshire, a span of nearly 600 miles. This result will prevent Sprint from deploying an 800 MHz 4G LTE channel in the border areas of Upstate New York, Vermont and New Hampshire as Sprint would be limited to only a single 3G CDMA channel (1.25 MHz) across all of CBR2.

This inequity to Sprint can be resolved if the ESMR Line is set according to the unique licensing environment in each NPSPAC Region within CBR2 as shown below. This approach would be far more equitable to Sprint who funded and performed the 800 MHz band reconfiguration initiative to not only resolve public safety – CMRS interference but to gain access to sufficient contiguous spectrum to deploy wider bandwidth technologies.[12] Most importantly, this approach will not adversely impact public safety or non-public safety systems that have been retuned and would not impact any U.S. – Canada cross-border allocation. Implementation of narrow, real world based NPSPAC Region-by-NPSPAC Region approach will enable Sprint to retain the spectrum it has cleared in each NPSPAC Region to the benefit of public safety licenses and provide Sprint greater ability to deploy 4G LTE broadband facilities in much of the Border Areas.

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[11] To aid in simplicity and consistency with the *Canada Order* Sprint uses an "ESMR Line" that is 12.5 kHz offset to the highest channel-center in use by an 800 MHz incumbent. For example, in CBR2, the highest non-ESMR licensee is centered at 864.8125 MHz. The TA Letter identified the proposed ESMR Line for CBR 2 as 864.825 MHz.

[12] In CBR2, the U.S. – Canada Border allocation between the two countries is weighed heavily in favor of Canada which results in the U.S. allocation beginning a full megahertz or two higher than in other CBRs. In CBR1, CBR4, CBR5 and CBR8, the U.S. allocation begins at 862.25 MHz. In CBR3, the U.S. allocation begins at 860.75 MHz. In contrast, in CBR2, the U.S. allocation begins at 863.75 MHz. After all the non-ESMR incumbents were provided replacement frequencies beginning at 863.75 MHz and ending at 864.8215 MHz in Erie, this leaves little room to accommodate Sprint's broadband spectrum requirements which is why Sprint is requesting more specific ESMR Lines.

The following is a chart which shows the NPSPAC Regions within CBR2 and the Sprint proposed ESMR Lines within each NPSPAC Region that should be adopted using a more narrow approach.

NPSPAC Region	NPSPAC Region #	Canada Border Region	ESMR/non-ESMR Line Based on Highest Replacement Frequency Within Entire CBR	ESMR/non-ESMR Line Based on Highest Replacement Frequency within NPSPAC Region)	Result
Western Pennsylvania	36	2	864.825	864.825	Same - No change necessary
New York (Western)	55	2	864.825	864.575	ESMR Line Lowered
New York (Albany)	30	2	864.825	863.9	ESMR Line Lowered
VT/NH	19	2	864.825	863.9	ESMR Line Lowered

While adoption of this approach for CBR2 will result in three separate ESMR Lines within CBR2, using the more narrow NPSPAC Region-by-NPSPAC Region approach within CBR2 should not create additional challenges for 800 MHz frequency coordinators or licensees. Frequency coordinators already face having distinct ESMR Lines in adjacent Regions (e.g., where CBR4 meets CBR3, where CBR3 meets CBR2 and where CBR2 meets CBR1). Therefore, having to account for multiple ESMR Lines within a CBR should be manageable for all parties.[13]

Conclusion

Setting the ESMR Line slightly lower within defined portions of CBR2 will provide Sprint an improved short-term and long-term deployment of ESMR facilities in the Border Areas with no adverse impact on existing 800 MHz incumbents below the ESMNR Line. Sprint's approach to setting an alternate ESMR Line in CBR2 based on NPSPAC Region-by-NPSPAC Region variances in each area is a more reasonable approach than the use of a single area dictating an entire CBR. As demonstrated above, the CBR approach penalizes Sprint for the incumbency level in one small region within a larger CBR by adopting the highest ESMR Line within the entire CBR. Accordingly, Sprint requests adoption of a narrower approach for CBR2 to set the ESMR Line as described herein.

[13] Notably Sprint already has engineering tools to adequately protect incumbent licensees in one NPSPAC Region when the adjacent NPSPAC Region has a different frequency plan. This same approach will be used in CBR2 to ensure that licensees in Erie and Buffalo will be given adequate protection from Sprint's operations in Upstate New York where Sprint would be permitted to operate as low as 863.9 MHz. This will result in a "buffer zone" in the Upstate New York area so that Buffalo operations between 863.9 MHz and 864.5575 MHz are fully protected.

Should you have any questions in this matter, please contact me at james.goldstein@sprint.com.

Sincerely,

/s/ James B. Goldstein

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